Lafourche Parish Water District No. 1

P.O. BOX 399
LOCKPORT, LOUISIANA 70374

AREA CODE 985
PHONE 532-6924
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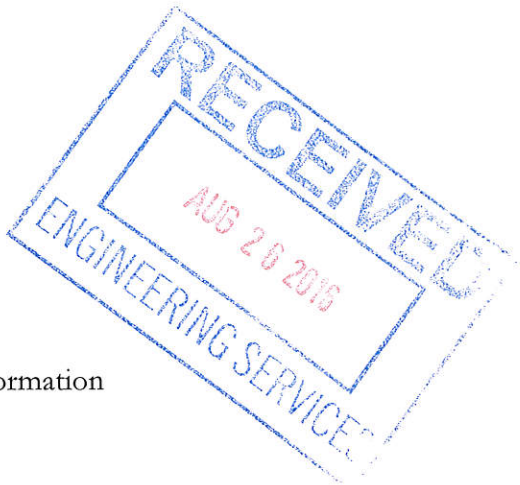
August 22, 2016



Attn: Mr. Sean Nolan
Safe Drinking Water Program
LDH/OPH Engineering Services
P.O. Box 4489
Baton Rouge, LA 70821

Re: Lafourche Parish Water District No. 1 (LA1057001)
Lead and Copper Rule – Improving Transparency and Public Information
Distribution System Materials Inventory

Dear Mr. Nolan,

In effort to comply with the request outlined in your letter dated July 13, 2016, I am enclosing a copy of our Lead and Copper Monitoring Program for your review. This submittal includes elements of our L&C program such as protocol used for identifying and selecting sample locations, an updated materials inventory, a description of our sample collection procedure, our initial and historical L&C results, and an explanation of action levels. We are confident that this information complies with your request. If it does not, please advise and we will revise accordingly.

If you have any questions or need further information, feel free to contact me or Jared Allemand at 985-532-6924.

Sincerely,

Dirk Barrios
General Manager
Lafourche Parish Water District No. 1

Cc: Ms. Yoland Brumfield

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Lead & Copper Monitoring Program

Lafourche Parish Water District No. 1 (LPWD)
PWS#1057001
Revised August 22, 2016

1. Purpose

The Lafourche Parish Water District's Lead & Copper Monitoring Program was implemented in 1992 in order to comply with the requirements of EPA's Lead and Copper Rule (LCR). The primary objective of this rule was for water systems to identify high risk areas within their distribution systems and to determine the lead and copper concentrations in those locations. Base on the concentrations found, EPA would notify the system if any corrective actions were needed and would assign a sampling frequency for future monitoring. Systems with higher lead and copper concentrations would be required to sample more frequently than those with lower concentrations.

2. Identifying Sample Locations

The LCR dictates that water systems monitor lead and copper concentrations at Tier I (high risk) locations throughout their water systems. In order to identify those Tier I sample sites, each system had to perform a materials inventory evaluation of its distribution system. Once the materials inventory evaluation was complete, the system would identify numerous sites that met the Tier I selection criteria. From those locations, 60 sample sites were selected to create the initial Tier I sampling pool. Participants from this pool would be used for the initial round of L&C monitoring and for all subsequent monitoring.

a. Distribution Materials Inventory

Materials inventory information was gathered from various resources including distribution system maps, meter applications records, meter inventory reports, materials and supplies bid documents, old board meeting minutes, and conversations with senior personnel and retirees. In some cases the figures provided below are estimates due to the limited availability of specific records. However, collectively, the resources used support the accuracy of this information to the best of our knowledge. LPWD's updated materials inventory evaluation revealed the following:

i. Distribution System Piping:

As of August 2016, LPWD has an estimated 828 miles of water lines in its distribution system. Most of those lines are cast iron or polyvinyl chloride (PVC). Together these two pipe materials account for approximately 82% of the total piping in our system. The remaining 18% consist of various types of pipe materials. Our mapping software indicates that we have the following amounts of each pipe material in use: 209 miles of polyvinyl chloride (PVC); 65 miles of ductile iron; 469 miles of cast iron; 0.77 miles of galvanized pipe; 57 miles of asbestos cement; 27 miles of High Density Polyethylene (HDPE); 0.24 miles of Steel.

ii. Service Lines:

The District has Polyethylene (Plastic) and Copper service lines throughout its distribution system. Although our distribution maps do not provide specific information regarding service lines, we were able to estimate the percentage of each based on the quantities of those materials purchased. Additional resources such as old board meeting minutes, past meter applications, materials and supplies bid documents, and conversations with senior personnel and retirees were used to confirm the following:

a. Polyethylene (Plastic) Service Lines – From past materials and supplies bid documents, we've established that approximately 82.2% of the service tubing material purchased from 1978 through 2000 was polyethylene (plastic). Since 2001, plastic has been used exclusively for all new and replaced services.

b. Copper Service Lines – Again, using our historical materials and supplies bid documents, we've established that the remaining 17.8% of service tubing material purchased from 1978 through 2000 consisted of Type K Copper. Senior personnel and retirees reported that these copper services were primarily used along main highways. In addition, our research indicated that the use of copper service tubing was discontinued in 2001.

c. Lead Service Lines – There are **ZERO LEAD SERVICE LINES** in the District's distribution system as confirmed by board meeting minutes from January 1952, by past meter application records dating back to 1955, and verified by senior personnel and retirees.

iii. Water Meters:

As of July 2016, the District had approximately 33,358 water meters in its distribution system constructed of either Plastic or Brass. Information found in meter inventory reports revealed the following:

a. Plastic Meters – Our meter inventory records indicate that the majority of our meters are plastic. We estimate that there are 23,740 plastic water meters in our distribution system and they account for roughly 71% of our total meter inventory.

b. Brass Meters – Using the same meter inventory records, we estimate that there are 9,616 brass meters in our distribution system. This figure equates to approximately 29% of the total meters in our service area. Of those meters, approximately 459 were purchased after January 1, 2013, and comply with the standards of House Bill 471 of the State of Louisiana regarding Lead Free materials used in drinking water systems. All new or replaced brass meters installed after January 1, 2013 carry this low lead certification. Although the remaining 9,157 brass meters conformed to the industry standards of their time, they do not meet the low level guidelines of HB 471.

iv. Private Plumbing Material:

LPWD has no jurisdiction over private plumbing materials in its distribution system. Piping and fixtures inside the home are the responsibility of the homeowner. If you are concerned that your home is plumbed with lead materials, the following precautions can be taken:

a. Use only cold water for cooking and drinking.

b. Flush your taps by running the cold water for 30-60 seconds or until the water reaches a steady temperature to flush potential lead-containing water from your plumbing.

c. Remove and clean the strainer/aerator screen on your faucet on a regular basis.

b. Selecting Sample Locations

Since LPWD does not have Lead Service Lines (LSLs) in its system, the LCR requires that the next highest risk Tier I locations are used to establish Lead and Copper monitoring sites (See Tier I description below). After identifying a number of Tier I locations in 1992, the District contacted the owners of those residences and requested their participation in our Lead and Copper monitoring program. Once participants were secured, the ones that provided the best geographical coverage were included in our initial pool of 60 sample sites. Again, all of the sample locations selected met the criteria for Tier I sites as described below.

i. **Tier Site Descriptions**

Tier I sites are sites that are considered single family structures and contain either lead plumbing, serviced by a lead service line, or contain copper pipes with lead solder and were constructed after 1982.

Tier II sites are sites that include buildings and multiple family residences containing lead plumbing, serviced by a lead service line, or contain copper pipes with lead solder and were constructed after 1982.

Tier III sites are sites that are considered single family structures containing copper pipes with lead solder and were constructed prior to 1983.

3. **Sample Collection Procedure**

Lead and Copper tap sampling is performed in accordance with procedures established by EPA and LDH. Sample locations are selected from the initial Pool of 60 Sample Sites and samples are collected by either water system personnel or by residents who are given collection instructions. Typically LPWD requests that the owner collect the L&C sample. If they agree, each participant is provided a packet of instructions describing how to collect the sample, a 1 liter sample bottle, and a form to be completed once the sample has been collected. They are then asked to collect the sample from either a cold water kitchen tap or bathroom sink tap after the water has stood motionless in their plumbing system for at least six hours. They are also encouraged to collect the sample either upon waking up in the morning or after returning home from work. Once the samples are collected, District personnel delivers them to LDH laboratory for analysis.

4. **Initial L&C Monitoring**

LPWD performed its initial Lead and Copper monitoring in 1992. The 1992 monitoring involved collecting Lead and Copper samples from 60 Tier I sample sites throughout the distribution system (as described above) and 2 source water samples. This was done twice in 1992 during two consecutive six-month periods. Louisiana Department of Health evaluated the results from both samples sets and immediately granted LPWD "Reduced Monitoring Status". This was issued because the results from 1992 confirmed our system demonstrated optimal corrosion control. Optimal corrosion control is achieved when the difference between the source water and tap water lead concentrations are less than 0.005 mg/l. Below were the results obtained during the initial round of sampling in 1992:

a. **Initial Monitoring Tier 1 Results:**

Date	Lead 90th Percentile	Copper 90th Percentile
3/12/1992	0.001 mg/l	0.000 mg/l
9/16/1992	0.003 mg/l	0.000 mg/l

b. **Initial Monitoring Source Water Results:**

Date	Lead (mg/l)	Copper (mg/l)
3/12/1992	0.000 mg/l	0.000 mg/l
9/16/1992	0.000 mg/l	0.000 mg/l

5. **Subsequent L&C Monitoring**

Following the initial round of sampling, LPWD was placed on a "Reduced Monitoring" schedule. Reduced monitoring is only offered to those systems who have optimal corrosion control and whose sample results demonstrate that their water's corrosiveness characteristics minimize the release of lead and copper from private plumbing. Systems who qualify are allowed to reduce their monitoring frequency from annually to triennially (every 3 years). It also allows those systems to decrease the quantity of samples collected from 60 to 30 sample sites during subsequent monitoring periods.

However, any time the "Action Level" for either Lead or Copper is exceeded, the system would lose its reduced status and revert back to the standard monitoring. LPWD has kept the reduced monitoring status since it was originally granted it in 1992. Below are our historical lead and copper results:

a. Subsequent Monitoring Tier I Results:

Year	Lead 90th Percentile	Copper 90th Percentile
2013	0.001 mg/l	0.2 mg/l
2010	0.003 mg/l	0.2 mg/l
2007	0.004 mg/l	0.4 mg/l
2004	0.008 mg/l	0.2 mg/l
2001	0.002 mg/l	0.2 mg/l
1998	0.001 mg/l	0.1 mg/l
1995	0.001 mg/l	0.1 mg/l

6. Lead & Copper Action Levels

EPA set "Action levels" at 0.015 mg/l for lead and 1.3 mg/l for copper. In accordance with the Lead & Copper Rule, corrective action must be taken if lead or copper concentrations exceed their action levels (0.015 mg/l Pb or 1.3 mg/l Cu) in more than 10% of the samples collected. In other words, if 10% of the concentrations (or the 90th percentile value) obtained during any monitoring period exceeds the "AL", systems would be required to implement additional corrosion control, educate the public on how they can reduce their exposure to Lead, forfeit their reduced monitoring status (if applicable), and revert back to the standard monitoring frequency for Lead & Copper sampling.

7. More Information

For more information, you can visit the LDH website at www.dhh.la.gov or the EPA's website at www.epa.gov. As always, you can also call the District's Office at 985-532-6924.